

Vikram Sarabhai

(1919-1971)



When Bhabha died an untimely death in an airplane crash in 1966, 'Who, after him?' became a big question. Who could replace such a great physicist? Soon every one's answer was: "Vikram Ambalal Sarabhai." Thus, in 1966, Vikram Sarabhai succeeded Dr. Bhabha as the Chairman of the Atomic

Energy Commission. He was one of the greatest scientists of India. As Chairman of the Atomic Energy Commission, he guided research of the greatest importance to the country.

The Sarabhais are famous industrialists and social workers of Ahmedabad city. In this family was born Vikram on 12th August 1919. His father was Ambalal and his mother, Sarala Devi. They had eight children. Sarabhais started a Montessori school in their own house for their children. In this school, there were separate teachers to teach languages, the sciences, the arts, gardening, technology etc. There were laboratories and workshops also. At one time, there were thirteen teachers in the school for the eight children of the Sarabhai family. Of these, three were Ph.Ds, trained in Europe. Gurudev Rabindranath Tagore himself selected an artiste to teach dancing. The children studied in this school up to matriculation and went to government schools for their Matriculation Examination.

Vikram was influenced not only by the school but also by many great men of the land who were well-known to the Sarabhai family. Gurudev Rabindranath, J. Krishna Murthi, Motilal Nehru, V. S. Shrinivasa Shastri, Jawaharlal Nehru, Sarojini Naidu, Maulana Azad, C. F. Andrews, C. V. Raman and such great men used to stay with the Sarabhai family when they visited Ahmedabad. Mahatma Gandhi stayed in their house

while recovering from an illness. There is no doubt that close contact with these great men deeply influenced young Vikram. His intelligence developed, and he gained interest in spiritual matters.

After completing his college education Vikram Sarabhai went to England to continue his studies at Cambridge University. In 1939, when Vikram was only twenty, he passed the Tripos Examination in Physical Sciences. The Second World War broke out in 1939. Soon after, Vikram returned to India. Right from his boyhood, Vikram had great love for physics. During the forties, the most famous center for scientific research in India was the Indian Institute of Science at Bangalore. When Sarabhai returned to India, he came down to Bangalore to carry on research on mesons and cosmic rays under Dr. C. V. Raman. He conducted research on the changes in the intensity of cosmic rays. His first scientific paper was on the periodical variation of the intensity of cosmic rays which was published (1942) in Bangalore in a scientific journal. This research helped him later to take up the studies of interplanetary space, the relationship between the sun and the earth and earth magnetism. During this period, he did research for sometime in the Poona Central Meteorological Station where he got the idea of establishing a cosmic ray research institute.

Vikram Sarabhai had married the famous dancer Mrinalini Swaminathan in 1942. They had a son, Karthikeya and a daughter, Mallika.

In 1945, the Second World War ended. Sarabhai again went to Cambridge to continue his study of cosmic rays. In 1947 he got his Ph.D. for this work. Shortly after he returned from Cambridge he established the Physical Research Laboratory at Ahmedabad. The Institute was started with only a few, students and laboratory assistants. In a few years this group developed into a dedicated team of scientists and research workers. In spite of his many duties in

later years, Sarabhai maintained close contact with this institute till his death. At first he was a Professor of cosmic ray research; from 1965 he worked as the Director of this institute. This Institute sponsored a cosmic ray research centre established in 1955 at Gulmarg, in Kashmir. The work done at this centre attracted the notice of the Atomic Energy Department of the Government of India and won its appreciation. This Department established a full-fledged High Altitude Research Center at the same place -the only research center in the world to be set up at such a high altitude. At last, Sarabhai's long cherished dream became a reality. Later on, similar centers were opened at Kodaikanal in Tamilnadu and at Trivandrum in Kerala.

In 1956, the Productivity Congress met in Japan and the Indian Government selected him as the leader of the Indian delegation. He was then only 37 and was the first Indian to attend this Congress. Sarabhai presided over the Physics Section of the Conference of the Indian Science Congress in 1962. Very few have achieved such a distinction at the age of 40. The Government of India awarded the Shanti Swarup Bhatnagar Medal in Physics to Sarabhai in 1962. In 1966 he received the Padma Bhushan Award. In the same year he was appointed as the Chairman of the Atomic Energy Commission. When he was the Chairman he prepared a master plan for the development of Atomic Energy and Space Research for the decade 1970-80. In 1968, the United Nations organized a Conference on Exploration and Peaceful Uses of Outer Space. Sarabhai was the Chairman of this conference.

To carry out scientific and technological researches in the country he established several organizations. The first one was the Physical Research Laboratory at Ahmedabad. In this, he formed the 'Group for the Improvement of Science Education', in 1963. In the same year, he established the Nehru Foundation for Development, for the study of social and educational

problems. In 1966, under its auspices, he established the Community Science Center, whose object was to spread scientific knowledge, to create interest in science and to promote experimentation among students, teachers and the general public. To train efficient managers of factories, he started the Indian Institute of Management at Ahmedabad. Of all the institutions he established, the most important was the Indian Space Research Organization with centres at Thumba (near Trivandrum), Ahmedabad, Shriharikota (north of Madras) and Arvi (near Bombay). At Thumba and Shriharikota he established Rocket Launching Stations. There was an organization called Pugwash Continuing Committee whose aim was to establish peace on earth and promote disarmament, particularly of dangerous weapons, all over the world. Sarabhai founded the Indian Branch of this Committee. In the midst of all this work, he had set apart sometime for the pharmaceutical industry. He was one of those who wanted to preserve the highest standards in the manufacture of drugs.

On 29th December 1971, Sarabhai was in Trivandrum to guide the work at the Rocket Launching Station, Thumba. He was staying in a hotel there. He talked to every one as usual and went to bed. He never got up again.-The man who at birth was blessed by Lakshmi, the Goddess of Wealth, but worshipped Saraswati, the Goddess of Learning, died when he was busy with his research. He was then 52.

Like Bhabha, Vikram Sarabhai also had his dream to use atomic energy for a variety of purposes - for the development of agriculture and industry, for communication satellites, for national integration and promotion of literacy, for weather forecast and for exploration of mineral wealth etc. To his last breath he worked for the realization of this dream. After his death, the Government conferred on him, in 1972, the title of Padma Vibhushan.

*The heights by great men reached and kept
Were not attained by sudden flight,
But they, while their companions slept,
Were toiling upward in the night.*

— H. W. Longfellow